

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (original): A polypeptide immunogen comprising an amino acid sequence at least 90% identical to SEQ ID NO: 1, wherein said polypeptide provides protective immunity against *S. aureus* and wherein if one or more additional polypeptide regions are present said additional regions do not provide a carboxyl terminus containing amino acids 609-645 of SEQ ID NO: 2.

Claim 2 (original): The polypeptide of claim 1, wherein said polypeptide consists of an amino acid sequence at least 90% identical to SEQ ID NO: 3 or a fragment thereof comprising an amino acid sequence at least 90% identical to SEQ ID NO: 1.

Claim 3 (original): The polypeptide of claim 2, wherein said polypeptide consists of an amino acid sequence at least 94% identical to SEQ ID NO: 3, or a fragment thereof comprising an amino acid sequence at least 94% identical to SEQ ID NO: 1.

Claim 4 (original): The polypeptide of claim 3, wherein said polypeptide consists of an amino acid sequence at least 94% identical to SEQ ID NO: 1, SEQ ID NO: 3 or SEQ ID NO: 42.

Claim 5 (original): The polypeptide of claim 1 wherein said polypeptide consists essentially of the amino acid sequence of SEQ ID NOS 1, 3, 7, 17, 20, or 42.

Claim 6 (original): The polypeptide of claim 5 wherein said polypeptide consists of the amino acid sequence of SEQ ID NOS 1, 3, 7, 17, 20, or 42.

Claim 7 (withdrawn): An immunogen comprising an amino acid sequence at least 90% identical to SEQ ID NO: 1, wherein said immunogen consists of said amino acid sequence and one or more additional regions moieties covalently joined to said sequence at the carboxyl terminus or amino terminus, wherein each region or moiety is independently selected from a region or moiety having at least one of the following properties: enhances the immune response, facilitates purification, or facilitates polypeptide stability.

Claim 8 (previously presented): A composition able to induce a protective immune response in a patient comprising an immunologically effective amount of the immunogen of claim 1 and a pharmaceutically acceptable carrier.

Claim 9 (original): The composition of claim 8, wherein said composition further comprises an adjuvant.

Claim 10 (withdrawn): A nucleic acid comprising a recombinant gene comprising a nucleotide sequence encoding the polypeptide immunogen of claim 1.

Claims 11-16 (canceled)

Claim 17 (withdrawn): A recombinant cell comprising the nucleic acid of claim 10.

Claim 18. (withdrawn): A method of making a *S. aureus* polypeptide that provides protective immunity comprising the steps of:

- (a) growing the recombinant cell of claim 17 under conditions wherein a polypeptide is expressed; and
- (b) purifying said polypeptide.

Claim 19 (canceled)

Claim 20 (withdrawn): A method of inducing a protective immune response in a patient comprising the step of administering to said patient an immunologically effective amount of an immunogen comprising a polypeptide, wherein said polypeptide comprises an amino acid sequence at least 90% identical to SEQ ID NO: 1 and provides protective immunity against *S. aureus*.

Claim 21 (withdrawn): The method of claim 20, wherein said immunogen is the immunogen of claim 1.

Claims 22-23 (canceled)

Claim 24 (withdrawn): A method of inducing a protective immune response in a patient comprising the step of administering to said patient an immunologically effective amount of a polypeptide made by the method of claim 18.

Claim 25 (withdrawn): A method of inducing an anamnestic response in a patient comprising the step of administering to said patient an effective amount of an immunogen comprising a polypeptide, wherein said polypeptide comprises an amino acid sequence at least 90% identical to SEQ ID NO: 1 and provides protective immunity against *S. aureus*.

Claim 26 (canceled)

Claim 27 (withdrawn): A yeast optimized nucleic acid sequence encoding an ORF0657n related polypeptide that provides protective immunity against *S. aureus* infection, or a fragment thereof comprising an amino acid sequence at least 90% identical to SEQ ID NO: 1.

Claim 28 (canceled)

Claim 29 (withdrawn): A method of making a polypeptide that provides protective immunity against *S. aureus* comprising the steps of

(a) growing a recombinant yeast cell under conditions wherein said polypeptide is expressed, wherein said recombinant yeast cell comprises a recombinant gene encoding said polypeptide and said polypeptide is a full-length ORF0657n related polypeptide that provides protective immunity against *S. aureus* infection, or a fragment thereof comprising an amino acid sequence at least 90% identical to SEQ ID NO: 1; and

(b) purifying said polypeptide.

Claims 30-32 (canceled)

Claim 33 (New): The polypeptide immunogen of claim 3, wherein said polypeptide is SEQ ID NO: 1 or differs from SEQ ID NO: 1 by up to 25 amino acid alterations.

Claim 34 (New): The polypeptide immunogen of claim 33, wherein said polypeptide is SEQ ID NO: 1 or differs from SEQ ID NO: 1 by up to 10 amino acid alterations.

Claim 35 (New): The polypeptide immunogen of claim 34, wherein said polypeptide is SEQ ID NO: 1 or differs from SEQ ID NO: 1 by up to 5 amino acid alterations.

Claim 36 (New): The polypeptide immunogen of claim 35, wherein said polypeptide is SEQ ID NO: 1.

Claim 37 (New): A composition able to induce a protective immune response in a patient comprising an immunologically effective amount of the polypeptide immunogen of claim 3 and a pharmaceutically acceptable carrier

Claim 38 (New): The composition of claim 37, wherein said patient is a human.

Claim 39 (New): A composition able to induce a protective immune response in a patient comprising an immunologically effective amount of the polypeptide immunogen of claim 33 and a pharmaceutically acceptable carrier.

Claim 40 (New): The composition of claim 39, wherein said patient is a human.

Claim 41 (New): A composition able to induce a protective immune response in a patient comprising an immunologically effective amount of the polypeptide immunogen of claim 34 and a pharmaceutically acceptable carrier.

Claim 42 (New): The composition of claim 41, wherein said patient is a human.

Claim 43 (New): A composition able to induce a protective immune response in a patient comprising an immunologically effective amount of the polypeptide immunogen of claim 35 and a pharmaceutically acceptable carrier.

Claim 44 (New): The composition of claim 43, wherein said patient is a human.

Claim 45 (New): A composition able to induce a protective immune response in a patient comprising an immunologically effective amount of the polypeptide immunogen of claim 36 and a pharmaceutically acceptable carrier.

Claim 46 (New): The composition of claim 45, wherein said patient is a human.